



UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/030,394 02/25/98 YUSCHAK

G 19462.118

EXAMINER

000136 QM32/0525
JACOBSON HOLMAN PLLC
400 SEVENTH STREET N.W.
SUITE 600
WASHINGTON DC 20004

ART. UNITS, A PAPER NUMBER

DATE MAILED: 07/01

05/25/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/030,394

Applicant(s)

GREGORY YUSCHAK ET AL.

Examiner

AARON J. LEWIS

Art Unit

3761



– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THREE MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on Feb 1, 2001

2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-28 is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-28 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirements.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

19) ☐ Notice of Informal Patent Application (PTO-152)

17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

20) ☐ Other: _____

Art Unit: 3761

DETAILED ACTION

Response to Arguments

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-20,25-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1 and 25, "...without rotational movement..." is ambiguous as to the specific structure which is intended to not undergo rotation. Moreover, the specific rotational movement is ambiguous as to the specific path of rotation relative to the recited structure has not been specified.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 3761

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-6,9,10,14,16,18-28 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Burns et al.('421).

As to claim 1, Burns et al. (fig.4) disclose a respirator that comprises: a face piece (12) sized to fit at least over the nose and mouth of a person; a cartridge receiving structure (26) located on the face piece; and a filter cartridge (28) that has a housing into which a filter element is contained (fig.4), the filter cartridge capable of being manually snapped (col.4, lines 59-63; col.5, lines 9-15) into engagement with the cartridge receiving structure to produce an audible noise, the engagement being instantaneously obtainable by pressing the filter cartridge against the receiving structure without rotational movement, the filter cartridge further being capable of being readily separated from the cartridge receiving structure by pulling manually thereon (col.5, lines 23-28).

Alternatively, while Burns et al. lack express disclosure of an audible noise being produced as a result of engaging the filter cartridge with the cartridge receiving structure, there is express disclosure of the cartridge receiving structure (26,36) being bendable (col.5, line 12) and since the distance between locking tabs (29) of the filter cartridge exceeds the diameter of the opening into which they are inserted (fig.4), the locking tabs must flex inwardly prior to seating themselves in the locked position in the opening of the cartridge receiving structure. Consequently, it would

Art Unit: 3761

have been obvious that the movement of the locking tabs into their seated locked position would result in an audible noise.

As to claim 2, the respirator of Burns et al. is a negative pressure respirator since it requires a user to inhale and create a negative pressure within the mask in order to draw in breathable air.

As to claim 3, Burns et al. (col.5, lines 14 and 15) disclose an interference fit between the filter cartridge and the cartridge receiving structure such that an essentially air-tight seal is provided.

As to claim 4, Burns et al. (fig.4) illustrates the filter cartridge (28) having a radially outwardly projecting surface (i.e. surface against which ridge 36 seals) and the face piece has a skirt (20) that has a radially inward projecting surface.

As to claims 5,13, the snap fit mechanism of Burns et al. includes a male member (locking tabs 29) a female member (26,36), the female member expanding and compressing radially inwardly (col.5, line 13). Note that while the member (36) is bent outwardly, it exerts a restoring force in the opposite direction (i.e. inward).

As to claim 6, the male members (29) of Burns et al. as applied to claim 5 above, expand radially outwardly while the female member simultaneously compresses radially inward.

As to claim 9, the disclosed manner of attaching the filter cartridge and face piece of Burns et al. is the manual pressing of the filter cartridge against the face piece in a direction normal to the facepiece (col.5, line 10).

As to claim 10, as discussed above with respect to claim 1, Burns et al. (col.5, lines 23-28) teach removal of the filter cartridge from a platform which is permanently attached to the face

Art Unit: 3761

piece. It stands to reason that a manner of detachment would be the reverse of the disclosed manner of attachment. That is, one could manually pull the filter cartridge from the platform which is permanently attached to the face piece.

As to claim 14, Burns et al. (fig.4) illustrate a second engagement mechanism (36 abutting the casing of the filter cartridge) that is laterally located from the snap-fit engagement mechanism.

As to claim 16, the cartridge receiving structure (26) of Burns et al. includes a skirt (20) that engages the projecting flange (36).

As to claim 18, the projecting flange (36) of Burns et al. (figs.4,5) has a radially outward projecting surface that engages a radially inward projecting surface of the skirt (20).

As to claims 19 and 20, the skirt (20) of Burns et al. (col.5, lines 9-17) expands radially outward from a rest condition and the projecting flange is pressed radially inward when the filter cartridge is pressed towards the face piece and the skirt (20) exerts pressure on the projecting flange (36) during engagement to create an essentially airtight seal between the skirt and flange (col.5, line 14).

Claims 21-25 are substantially equivalent in scope to claim 1 and are included in Burns et al. for the reasons set forth above with respect to claim 1.

As to claims 26-28 are substantially equivalent in scope to claims 5,6,13 and are included in Burns et al. for the reasons set forth above with respect to claims 5,6,13.

7. Claims 11,12,17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burns et al. ('421).

Art Unit: 3761

As to claims 11,12,17, the particular flexural modulus of the material of the cartridge receiving structure and the filter cartridge of Burns et al. and the particular flexural modulus and the particular amount of force required to couple and uncouple the filter cartridge to/from the cartridge receiving structure of Burns et al. can be arrived at through mere routine obvious experimentation and observation with no criticality seen in any particular flexural modulus nor in any particular amount of force.

8. Claims 7,8,15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burns et al. ('421) in view of Michel et al.('346).

The difference between Burns et al. and claim 7 is a filter cartridge having a cylindrical housing containing a cylindrical filter element. Note that the filter cartridge of Burns et al. (fig.4) is illustrated as being axially offset from the cartridge receiving structure (26,36).

Michel et al.(fig.4), in a respirator, teach a filter cartridge having a cylindrical housing containing a cylindrical filter element.

It would have been obvious to modify the shape of the filter cartridge of Burns et al. to be of any well known shape including one which is cylindrical as taught by Michel et al. as mere substitution of one well known filter cartridge for another.

As to claim 8, the cartridge receiving structure (26,36) of Burns et al. encompasses an aperture having a circumference that is substantially less than the circumference of the cylindrical filter element.

Art Unit: 3761

As to claim 15, Burns et al. (fig.4) illustrate the snap-fit engagement mechanism (29,26) being offset laterally from the filter element and includes an outflow aperture having a circumference substantially smaller than the circumference of the filter element.

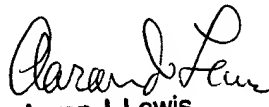
Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The balance of the art is cited to show relevant respirators.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron J. Lewis whose telephone number is (703) 308-0716.

Aaron J. Lewis

May 17, 2001


Aaron J. Lewis
Primary Examiner